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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,855	02/20/2004	Werner Doetsch	038715.53046US	1653
23911 7590 12/31/2007 CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			EXAMINER SAYALA, CHHAYA D	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 12/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/781,855	Applicant(s) DOETSCH ET AL.	
	Examiner C. SAYALA	Art Unit 1794	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/2007 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 63270612 or RU 2073436.

Each of these patents teaches a composition containing alkaline earth peroxide and boron.

In '612, the ratios compare with the peroxide content and taken with the boron content of the specification compare well with the instant invention.

In '436, the amounts of copper peroxide and boron are given as being 40-99.9% by wt. and 0.2-60.0 % by wt., respectively.

2. Claims 12-14 and 19 are under 35 U.S.C. 102(b) as being anticipated by GB 1580248.

The patent teaches treating sugar beet seeds with calcium peroxide, 0.01 and 90.0% by weight, for improving the quality of the beet. The boron additive is added in an amount 0 to 10%, preferably 0 to 5% by wt. (see page 2, lines 10-25; page 1, lines 25-30).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doetsch et al. (US Patent 6193776) in view of GB 1580248 and further in view of GB 1575792.

Doetsch et al. teach homogeneous calcium/magnesium peroxide with an active oxygen content of 10-18% by wt. The composition includes a peroxygen stabilizing amount of a stabilizer. (See claim 11). A process for preparing this homogeneous calcium/magnesium peroxide composition is also taught. See col. 3, lines 15+ which discloses the details of preparation of such a homogeneous composition of calcium/magnesium peroxide including stabilizer: an aqueous suspension of calcium and magnesium hydroxides are reacted together with aqueous hydrogen peroxide. The water is evaporated and the product is dried. Small amounts of stabilizer are added before, simultaneously or after the reaction with hydrogen peroxide. This results in the product having calcium peroxide and magnesium peroxide homogeneously dispersed in each other. See claim 4. The patent does not teach a boron content or boron compounds.

The GB '248 teaches a calcium peroxide amount of up to 50% and 0 to 5% of boric acid in a solution which are fed into a granulator and then dried. A granulator inherently would mix the ingredients to homogeneity. The patent teaches treating sugar beet seeds with calcium peroxide, 0.01 and 90.0% by weight, for improving the quality of the beet. The boron additive is added in an amount 0 to 10%, preferably 0 to 5% by wt. (see page 2, lines 10-25; page 1, lines 25-30). At page 2, lines 25+, the patent teaches how to coat the beet seeds with calcium peroxide and the compounds "used for improving the quality of the beet such as for example boron derivatives, in particular boric acid, borax and sodium perborate". At page 2, line 26, the patent states "The coating operations can be carried out in any manner known in itself in various types of

apparatus known in themselves, including for instance, granulators. These are fed with seed, calcium peroxide and possibly fillers, **water** and other additives. The resulting grains are then dried.” (emphasis added).

Thus ‘248 also teaches essentially a similar method, which is taking calcium peroxide and the boron compound *in water*, reacting it in the presence of the seed, and then drying it. Such a process, which is similar to the Doetsch et al. teaching, would inherently produce a homogeneously distributed boron within the calcium/magnesium peroxide, and one of ordinary skill in the art would have known that at the time the invention was made, based on the teachings of Doetsch et al.

GB ‘792 teaches that peroxygenated compounds have a high stability with compounds such as sodium perborate. Line 53 at page 1 states “In order to improve the stability of the peroxygenated compounds it has also been suggested that the peroxygenated compounds be mixed in the solid phase with metaboric acid”. In addition, page 1, in citing prior art, states:

“it has been suggested in the French Patent 750125, filed on 30.11.1932 in the name of Oesterreichische Chemische Werke Gesellschaft that various types of stabilising agents be introduced during the manufacture of the said per-oxygenated compounds by reacting salts or corresponding solid oxides with an aqueous solution of hydrogen peroxide, these stabilizing agents being capable of dissolution in the aqueous solution of hydrogen peroxide and/or mixed in the solid phase with the original oxides or salts.”

Such a teaching provides motivation to substitute the stabilizers of Doetsch et al. with stabilizing compounds shown by ‘792 and to incorporate such in the primary patent as functionally achieving the stabilization of the homogeneously distributed peroxygen compound when taken with the ‘248 teachings.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the peroxygenated compounds of the primary references with boric acid, which adds stability to the peroxygenated compounds, as taught by the method of Doetsch et al., i.e. by adding the boron compound and the peroxygen compound with water so as to give a suspension and/or solution and reacting them together and drying them out. This is the same method used by '248 to coat beet seeds. See page 2, lines 25-30 in '248. To substitute the method of Doetsch et al. with boron compounds which are shown to stabilize peroxygenated compounds, when Doetsch et al. already uses stabilizers, would have been prima facie obvious. Further, since Doetsch et al. teach the method of obtaining products that are homogeneously distributed, even with stabilizers, then to follow the same method with boron compounds would have been obvious to one of ordinary skill in the art at the time the invention was made with the reasonable expectation that the compounds are homogeneously distributed. GB '792 provides the motivation to make the substitution of boron compounds for the Doetsch et al. stabilizers, since the patent teaches that boron compounds are stabilizers for peroxides *and* the GB '248 patent teaches coating beet seeds with peroxygen and boron compounds combined in a water solution and drying them, steps also followed by Doetsch et al. Note '792 at page 3, line 108 and page 4, line 56, which include the concept of homogenization in its incorporation of peroxide and boron compounds.

***Response to Arguments***

Applicant's arguments filed 10/31/2007 have been fully considered but they are not persuasive.

Applicant has limited the content of boron to 0.97 to 1.6 wt% and states that by doing so he has achieved an improvement in the stabilization of the alkaline earth peroxide. To quote: "Specifically, while a boron content of 0.97 wt.% leads to a dry stability loss of 7% and a boron content of 1.6 wt.% leads to a dry stability loss of 4.4%, an intermediate boron content of 1.4 wt.% leads to an improved dry stability loss of only 2.9 wt.% (see, e.g., Tables 1 and 5 and Examples 1, 4 and 5)."

He states that this is an unobvious result and patentability of the new claims be based on such a result, since Doetsch and the GB patents do not specifically teach or fairly suggest limiting the boron content to this range.

The examples and Tables pointed out by applicant have been thoroughly and carefully reviewed but do not establish patentability of these claims for the following reasons.


The peroxide content in Table 1 is 50% wt/wt and the claimed amount is "about 75 wt% or more". Furthermore, Examples 4 and 5 pointed out by applicant contains no hydrogen peroxide, even though the claims expressly recite hydrogen peroxide. It is well established that the objective evidence of nonobviousness must be commensurate in scope with the claims. See *In re Hyson*, 172 USPQ 399, *In re Tiffin*, 171 USPQ 294, *In re Lindner*, 173 USPQ 356. No claim is allowed.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Sayala whose telephone number is (571) 272-1405. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
C. SAYALA  
Primary Examiner  
Group 1700.